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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,615	08/07/2006	Robin Gruber	GRUBER ET AL-3 PCT	7207

25889 7590 05/29/2007
WILLIAM COLLARD
COLLARD & ROE, P.C.
1077 NORTHERN BOULEVARD
ROSLYN, NY 11576

EXAMINER

BAUER, SCOTT ALLEN

ART UNIT	PAPER NUMBER
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2836

MAIL DATE	DELIVERY MODE
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05/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/588,615

Applicant(s)

GRUBER ET AL.

Examiner

Scott Bauer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 08/07/2006 & 09/07/2006.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimbrough et al. (US 5,672,918), in view of Tran et al. (US 5,224,010).

With regard to claim 1, Kimbrough et al. teaches a method for suppressing latch-ups occurring in a circuit, wherein, in a current-limited supply voltage, the supply voltage is switched off following the detection of a latch-up, and charge located in the circuit is reduced, wherein the charge existing in the circuit is reduced by a short-circuiting switch (column 2 lines 35-54).

Kimbrough et al. does not teach that an undervoltage is detected, and, during restoration of the supply voltage, undervoltage detection is suppressed for a short time.

Tran et al., teaches a method for preventing latch-up wherein an undervoltage is detected, and, during restoration of the supply voltage, an undervoltage detection is suppressed for a short time (column 2 lines 47-63 & Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kimbrough et al. with Tran et al., by incorporating the undervoltage protection circuit of Tran et al. into the device of Kimbrough, for the purpose of protecting the circuit from entering a latch-up state caused by low voltage and thus, preventing damage to the circuit (column 1 line 65- column 2 lines 1-9).

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimbrough et al. in view of Tran et al. as applied to claim 1 above, and further in view of Kobayashi et al. (US 6,392,472).

With regard to claim 2, Kimbrough et al. in view of Tran et al. teaches the system for performing the methods according to claim 1. Kimbrough et al. further teaches that the system is for protection of radiation-sensitive active circuit components of an electronic circuit, wherein the circuit has a protective circuit assigned to it. Tran et al. shows that each circuit line is assigned its own protective circuit.

Kimbrough et al. in view of Tran et al. does not teach that the electronic circuit is subdivided into groups of active circuit components with substantially the same current consumption in a predefined area.

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Kobayashi et al., teaches a circuit wherein the electronic circuit is subdivided into groups of active circuit components with substantially the same current consumption in a predefined area (column 3 lines 48-59)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kimbrough et al. in view of Tran et al. with Kobayashi et al., by dividing the circuit into groups as taught by Kobayashi, for the purpose of easily maintaining the target voltage level of each circuit group.

Allowable Subject Matter

Claim 3 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims because the prior art of record does not teach or fairly suggest a system comprising all the features as recited in the claims and in combination with a voltage controller adapted to be switched off and allowing for adjustment of the current limitation, an actuator, two monoflops and a short-circuiting switch (KS) with current limitation.

Claim 4 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims because the prior art of record does not teach or fairly suggest a system comprising all the features as recited in the claims and in combination with unit for current detection being arranged upstream of a unit for voltage control to thereby avoid an influence of the input current on the output voltage. Kimbrough et al. teaches that the current

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detection device is down stream from the voltage control unit. There would be no motivation to place the unit upstream.

Claim 5 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims because the prior art of record does not teach or fairly suggest system comprising all the features as recited in the claims and in combination with for switching off a plurality or all of the groups of active circuit components having respectively one protective circuit (SSG) assigned thereto, a signaling line and a control line are provided which connect the protective circuits (SSG) of the groups of active circuit components on the output side and which themselves are connected to a central monoflop so that, upon detection of a latch-up in one of the protective circuits the central monoflop is started via the signaling line whereupon, via the control line, all voltage controllers are switched off and all short-circuiting switches of the protective circuits are activated and, after lapse of a predetermined brief delay, the supply voltage is restored again by monoflops respectively provided in a plurality or all groups of active circuit components of an electronic circuit.

Conclusion

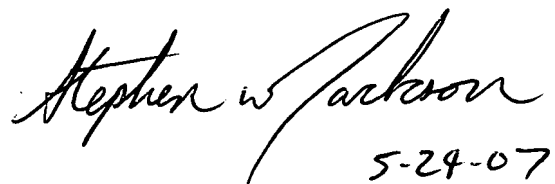
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bauer whose telephone number is 571-272-5986. The examiner can normally be reached on M-F 9am-6pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SAB
24 MAY 2007



5-24-07

STEPHEN W. JACKSON
PRIMARY EXAMINER